DESCRIPTION

AND

RULES FOR THE MANAGEMENT

OF THE

SPRINGFIELD RIFLE, CARBINE,

AND

ARMY REVOLVERS.

CALIBER .45.

WASHINGTON:
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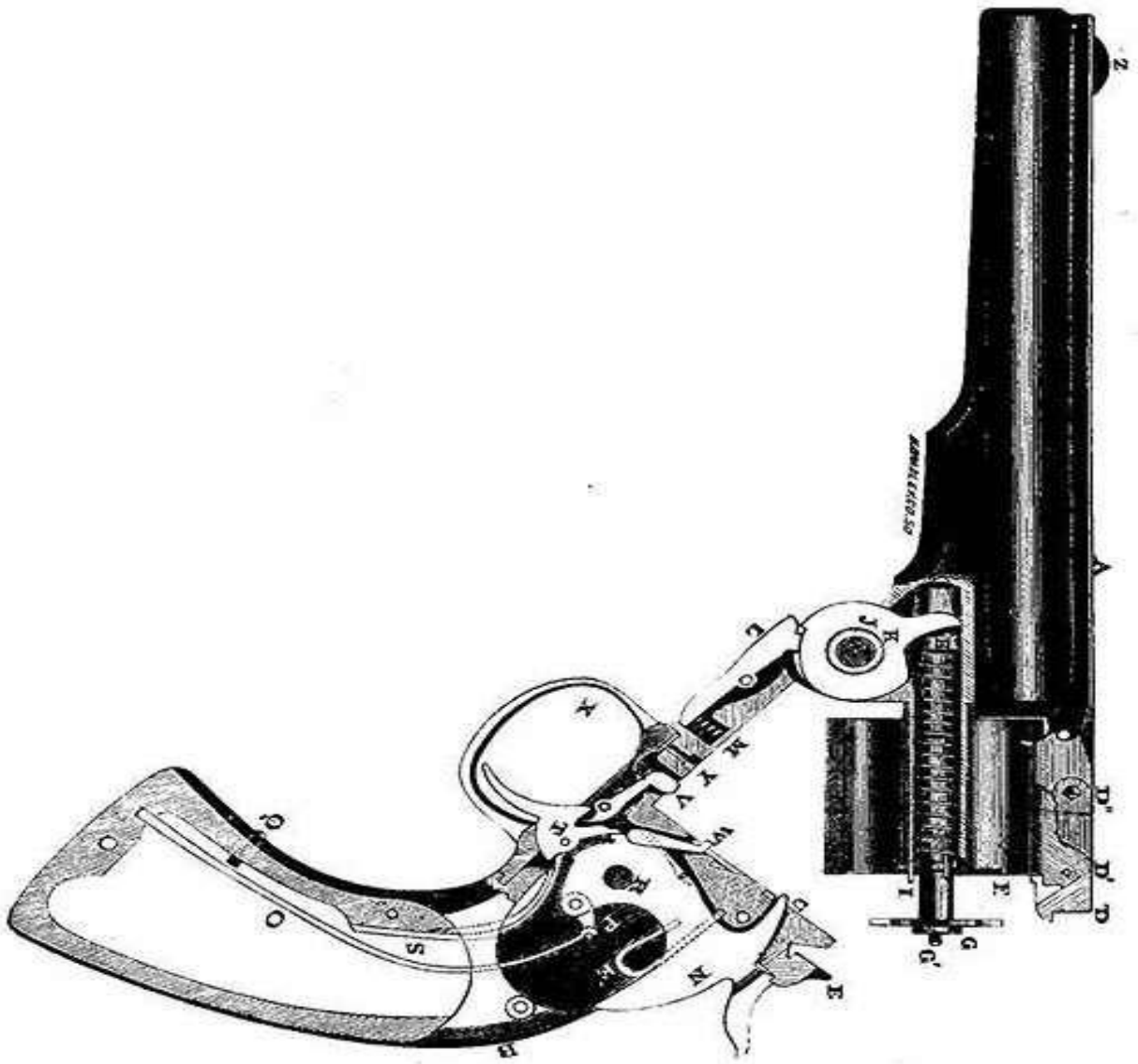
SCHOFIELD-SMITH AND WESSON ARMY REVOLVER, CALIBER 0.45".

DESCRIPTION.

FIG. 80.

SIDE ELEVATION OF SCHOFIELD-SMITH AND WESSON ARMY REVOLVER, CALIBER 0.45".

Fig. 81.



PARTIAL LONGITUDINAL SECTION OF SCHOFIELD-SMITH AND WESSON REVOLVER, SHOWING THE ESSENTIAL PARTS OF THE MECHANISM.

NOMENCLATURE.

A. Barrel.
E. Barrel-catch.
Barrel-catch screw.
E'. Barrel-catch spring.
Base-pin.
F. Cylinder.
D. Cylinder-catch.
D'. Cylinder-catch cam-screw.
D''. Cylinder-catch screw.
Escutcheon (not shown in Fig. 81; see Fig. 80).

G. Extractor.
H'. Extractor-spring.
H. Extractor-stem.
G'. Extractor-stud.
B. Frame.
K. Friction collar.
Z. Front sight.
Gas-ring, not shown.
X. Guard.
Y. Guard-screw.
N. Hammer.
R. Hammer-stud.
W. Hand.
Hand (spring) pin.
Handspring.
Joint pivot.
C. Joint-pivot screw.
J. Lifter.
O. Mainspring.
P. Mainspring swivel.
Nut (not shown).
L. Pawl.
Pawl-pin.
M. Pawl-spring.
U. Recoil-plate.
Side-plate screws (one shown).
Sight-pin.
I. Steady-pin.
Stock, two pieces (see Fig. 80).
Stock-pins.
Stock-screw (see Fig. 80).
V. Stop.
Stop-pin.
Stop-spring.
Q. Strain-screw.
P. Swivel-pin.
T. Trigger.
Trigger-pin.
S. Trigger-spring.
Trigger-spring pin.
Screw-driver.
Wiper

PRINCIPAL DIMENSIONS.

Total length	12.5"
Length of barrel	7.0"
Diameter of bore	0.436"
Grooves, number of	5
Grooves, kind of.—The grooves are of uniform width to their full depth. The bottoms of the grooves are concentric with the bore. The grooves and lands are of equal width.	
Grooves, depth of	0.006"
Grooves, depth	Uniform.
Grooves, twist of, one turn in	20 inches.
Grooves, twist	Right-handed.
Grooves, twist	Uniform.
Chambers, number of	6
Chambers, diameter of: Rear end	0.481" to 0.482"
Chambers, diameter of: Shoulder, incline	0.481" to 0.448"
Chambers, diameter of: Front end	0.448" to 0.449"
Cylinder, length of	1.425"
Cylinder, diameter of	1.69"

WEIGHTS.

Total weight	2.5 pounds.
Weight of powder charge	28 grains.
Weight of bullet	230 grains.

OPERATION OF THE PARTS.

(See Fig. 81.)

A is the *barrel*, connected with the *frame* B by the *joint-screw* C. From the rear of the barrel projects the base-pin, on which the *cylinder* F revolves. This is kept in place on its pivot by the inner hook of the *cylinder-catch* D. The cylinder-catch is pivoted at its front end on the *cylinder-catch screw* D", and is held down by the *cylinder-catch cam-screw* D', the upper part of the middle portion of which being cut away allows the catch to rise when the cam is turned to a certain position.

The base-pin is hollow and contains the *extractor-stem* H, made in two parts, which screw together. Between the head of the stem and the bottom of the hole in cylinder is confined the *extractor-spring* H' (more properly the *retractor* spring), which is compressed when the extractor moves out. The extractor G is recessed into the face of the cylinder. The ratchet by which the cylinder is revolved is cut in the face of the extractor, and the *extractor-stud* G' forms a rear bearing for the cylinder on the frame when the revolver is closed.

The *steady-pin* I keeps the extractor exactly in place when it is down.

The *lifter* J moves upon the *friction-collar* K, under the influence of the *pawl* L, in the manner hereafter described. The pawl is pressed against the lifter by the *pawl-spring* M. The lifter is moved by the pawl in one direction only, and is therefore free to follow the motion of the extractor-spring.

In closing the revolver the outer hook of the cylinder-catch presses back the *barrel-catch* E and engages with it under the influence of the *barrel-catch spring* E'. The position of the hammer prevents the opening of the barrel-catch, and consequently of the piece, until it has been brought to the position of half-cock.

The parts of the lock resemble in their general features those of the Colt's revolver, already described. They are N, the *hammer;* R, the *hammer-stud;* O, the *mainspring;* Q, the *strain-screw;* P, the *swivel* and *swivel-pin;* I, the *trigger* and *trigger-pin;* and S, the *trigger-spring.*

The hand W is kept in place by the handspring in the front surface of the hammer, which bears against a flat place on the pivot arm of the hand. The *stop* V is thrown up into the stop-notches of the cylinder by the stop-spring. It is drawn down out of them by the action of the trigger-spring on the trigger when the piece is at half-cock. When the hammer is at full-cock, and also during its fall, the upper arm of the trigger bears down on the rear end of the stop and keeps its head securely in the stop-notch. The *guard* X is secured to the frame by the *guard-screw* Y and by a lip on the rear end of the guard-strap, which fits under a corresponding projection of the frame, and so serves to hold the guard in place.

The sight Z is let into a groove in the upper side of the rib of the barrel. The *recoil-plate* U receives the bearing of the cartridge head at the time of firing.

MANIPULATION.

TO LOAD THE REVOLVER.—Bring the hammer to the position of half-cock and draw back the barrel-catch with the thumb. Swing the barrel open to its full extent, and place the cartridges in the cylinder.

The revolver can be readily opened with one hand by drawing back the barrel-catch with the thumb and at the same time throwing down the barrel from the wrist.

By bringing back the barrel to its former position it is automatically locked in place by the barrel-catch.

TO EJECT THE CARTRIDGE SHELLS.—In the act of opening the revolver, the lifter, being held by the pawl, presses against the underside of the stem of the extractor and raises it from its seat

in the cylinder, carrying with it, between the branches of the extractor, the cartridge shells. If these are empty and the motion is rapidly made, they are thrown out; if they are loaded, the weight of the ball and its extra length will keep them in the extractor. In closing the revolver the extractor-spring returns to its former position. By pressing on the end of the pawl nearest to the trigger-guard, in the act of opening the piece, the lifter does not act on the extractor and the cartridges remain undisturbed in the cylinder.

To remove one or two cartridges or shells without disturbing the remainder, open the revolver half way and throw out the pawl in the manner just described; the extractor returns to its place, so that the cartridges may be picked out at pleasure or else pressed back into the chambers preparatory to closing the piece.

TO DISMOUNT THE REVOLVER.—The only part of the revolver which will ordinarily require removal is the cylinder, which can be taken out as follows: Turn the cylinder-catch cam-screw just 180°, as indicated by the notch on its head; open the revolver; press up the head of the cylinder-catch until it clears the cylinder and draw out the cylinder. Replace it in inverse order. The other parts of the revolver should only be dismounted by an experienced person, and then in the manner indicated in the description of the figure.

AMMUNITION.

Revolver ball and blank cartridges, caliber 0.45″, metallic case, center-fire, and similar in their construction to the cartridge for the Springfield rifle.